

## LXV.—On Five new Mammals from Arabia and Persia.

By OLDFIELD THOMAS.

THROUGH the instrumentality of my colleague Mr. W. R. Ogilvie-Grant, Mr. G. W. Bury has been making a collection of mammals and birds in the high country to the north of Aden, on the borders of Yemen. Among the specimens so obtained are three genets (the genus *Genetta* not having been previously recorded from Arabia), a new *Meriones*, and examples of the Arabian fox, which I now think should have a special subspecific name. While working these out I have taken the opportunity to describe another fox from Northern Persia and a mouse obtained in Central Persia by Mr. Witherby.

*Genetta Grantii*, sp. n.

A member of the *G. dongolana* group and very similar to the red-spotted East-African species (*G. suahelica*, Matsch.). Centre line of back from behind withers to tail with a narrow black line; all other body-markings reddish fulvous. Head grey, with a well-defined dark median line, bordered on each side with a broader white streak. Nape with seven narrow dark lines, all of about equal breadth, diverging as they run backwards as usual. Sides each with five lines of spots, the upper line irregularly united into a more or less continuous streak. Under surface dull greyish, not so buffy as in *G. suahelica*. Ears grey, without darker spots at their posterior base. Forearms grizzled greyish, almost without spots, scarcely darker behind; fore feet greyish white, the outer edge of the metacarpal blackened below. Hind limbs indistinctly spotted above, the usual black patch above the ankle inconspicuous. Tail long-haired and shaggy, the rings not sharply marked, owing to the overlapping of the hairs; indeed they are scarcely definable proximally; dark rings eleven or twelve in number, each rather shorter than the light ones dividing them; light rings washed with dull fulvous above.

Dimensions of the type (measured in the flesh):—

Head and body 414 millim.; tail 426; hind foot 78; ear 32.

Skull: basal length 75; zygomatic breadth 39; palate length 38.

*Hab.* Azraki Ravine, Haushabi, Southern Arabia. Alt. 5200 feet.

*Type.* Male. Original number 7. Collected 30th May, 1902, by G. W. Bury. Three specimens.

*Meriones Buryi*, sp. n.

A tufted-tailed *Meriones*, with naked feet, superficially resembling *Gerbillus persicus*, Blanf.

Size fairly large. General characters of *Meriones*, but with wholly naked soles, which are apparently, as in "*Gerbillus*" *persicus*, granulated and quadrituberculate. General colour above deep "clay-colour," strongly grizzled with black; sides clearer fawn; belly dull buffy white, some of the hairs slaty based, others white to their roots; lips and chin white; chest with an ill-defined drabby patch. Median line of head like back; cheeks and ocular area grizzled grey; ears of medium length, their substance dark, their few fine hairs drabby fawn. Rump with a number of longer whitish-tipped hairs intermixed with the fur. Upper surface of hands and feet pale fawn. Tail long, dark fawn all round proximally, heavily black-crested above for its terminal half, the longest hairs attaining 15-18 millim.

Skull stout and less strongly built; supraorbital region heavily ridged; palatal foramina long, reaching just to the level of the front of  $m^1$ ; bullæ not excessively swollen.

Dimensions of the type (measured in the flesh):—

Head and body 148 millim.; tail 168; hind foot (s. u.) 33; ear 21.

Skull: basilar length 32.5; zygomatic breadth 21.7; interorbital breadth 6.6; palate length 19; diastema 11; palatal foramina 7.7; length of bullæ 12; length of upper molar series (crowns) 5.6.

*Lab.* Zal êd, Haushabi, in the hills north of Aden; altitude 4300 feet.

*Type.* Female. Collected 13th September, 1902, by Mr. G. W. Bury, after whom the species is named. Three specimens examined.

Owing to the fact that worn molars of *Meriones* are quite indistinguishable from those of *Gerbillus*, *Dipodillus*, &c., and that this species has the Dipodilline character of wholly naked soles, *Meriones Buryi* might easily be taken for a member of the latter group, in which it would stand near "*Gerbillus*" *persicus*, whose proportions and foot-characters are not dissimilar. Unfortunately no young specimens, showing the true molar structure, of either *G. persicus* or *M. Buryi* are available, and until that is the case I shall not feel satisfied about the proper allocation of either form. But in general skull-structure *M. Buryi* resembles some of the most typical species of *Meriones*, and I therefore now refer it to that genus, within which it may be readily distinguished by the characters above given.

"*Gerbillus*" *calurus* is another species of doubtful position, and it appears probable that the examination of young specimens will show it to be also a *Meriones*.

*Vulpes vulpes arabica*, subsp. n.

Allied to the Egyptian fox (*V. v. aegyptiaca*), but smaller and differently coloured.

Size intermediate between *V. vulpes* and *V. leucopus*. General tone of dorsal area rich tawny ochraceous, the hairs being not or rarely grizzled with grey. In the Egyptian fox the back is profusely grizzled and the general tone is much deader and browner. Face, and especially crown, bright fulvous, often conspicuous in specimens whose bodies are in the brown, out-of-season, pelage. Ear-backs rarely deep black, more often greyish, and sometimes scarcely darker than the head. The usual light patches in front of and behind the shoulders dull yellowish. Chin and belly dull whitish; chest with a variable amount of black upon it. Tail of medium thickness, dull greyish fulvous, its tip generally inconspicuously white. Skull shorter, broader, and rather more depressed than in the Egyptian fox.

Dimensions of the type (measured in skin):—

Head and body 610 millim.; tail 320; hind foot 130; ear 98.

Skull: basal length 120; greatest breadth 68; interorbital breadth 24.3; breadth of brain-case 43.6; palate, length 64, breadth between outer sides of  $p^4$  38; outer length of  $p^3$  11.8; greatest diameter of  $m^1$  11.7, of  $m^2$  8.6; combined antero-posterior diameter of the two latter teeth 12.7.

*Hab.* (of type). Muscat. Other specimens from Aden and the Hadramaut.

*Type.* Adult female. B.M. no. 94.3.9.1. Collected and presented by Surg.-Gen. A. S. G. Jayakar.

On account of its more vivid colour the Arabian fox seems to deserve a subspecific name, though its considerable variability makes it somewhat difficult to describe. Of previously named forms Gray's "*V. flavescens*," said to be from Persia, is a much paler and longer furred animal. Blanford's *V. persica* is probably synonymous with *V. flavescens*, but the type is in such bad pelage that the point cannot be settled at present.

*Vulpes vulpes splendens*, subsp. n.

A large long-haired fox of a vivid fulvous colour.

Size large, skull equal to that of the largest Siberian foxes. General colour above all over rich bright tawny ochraceous,

grizzled with white on the posterior half of the back. This rich colour is not confined to a narrow dorsal area, but extends over the whole upper surface, crown, nape, back, and sides. Individually the hairs are brownish basally, rich ochraceous terminally, with a whitish subterminal band in the posterior dorsal ring. Muzzle reddish brown. Backs of ears orange-fulvous at their anterior bases, deep black terminally. Belly and proximal part of limbs a rich deep reddish, between "hazel" and "ochraceous-rufous" of Ridgway; lips and chin greyish; chest white, with brown bases to the hairs. Hands and feet very thickly furred, grizzled black above, red on the sides and, more dully, below. Tail very large and thick, forming a fine brush of a fulvous nearly as vivid as that of the body; some of the hairs black-tipped and all with greyish bases; a distinct white tip to the tail.

Skull stout and heavy, with a large rounded brain-case; decidedly larger than in the southern Persian and Arabian forms—more as in Siberian examples. Frontal region more or less convex, less markedly flattened than usual. Interorbital and intertemporal region broad.

Dimensions of the type (measured in skin):—

Head and body 780 millim.; tail 490; hind foot 162; ear 93.

Skull: basal length 132; zygomatic breadth 77; interorbital breadth 29; intertemporal breadth 26·5; breadth of brain-case 48; palate length 70; length of  $p^4$  (outside) 14; greatest diameter of  $m^1$  13·3, of  $m^2$  8, combined length of two latter teeth 15.

*Hab.* Astrabad, N. Persia.

*Type.* B.M. no. 83. 2. 10. 1. Collected by Lieut.-Col. Beresford-Lovett.

This magnificent fox exceeds in the richness of its coloration any Old-World form with which I am acquainted. Not only is the fulvous of its upper surface far brighter than in other races, but the deep rich rufous of its belly distinguishes it from all its allies. Still it is no doubt only a local race of the common fox, and would grade westwards into *V. vulpes*, southwards into *V. v. flavescens*, and eastwards into *V. v. montana*.

*Mus sylvaticus Witherbyi*, subsp. n.

A mouse of the *M. sylvaticus* group, with pure white belly and very small teeth.

Size as in small forms of *M. sylvaticus*. General colour pale grey, but cheeks and sides clear fulvous, which is no doubt the colour of the whole upper surface when in fully

adult pelage. Under surface, from lips and chin to anus, inner sides of limbs, and whole of hands and feet pure snowy white, the hairs white to their roots, except just on the chest, where they have slaty bases. Ears of medium length, grey. Tail longer than the head and body, sharply bicolor, blackish above, pure white below.

Skull as compared with that of *M. s. arianus*, Blanf., rather smaller, and with decidedly smaller teeth.

Dimensions of the type (measured in the flesh) :—

Head and body 93 millim.; tail 102; hind foot 21; ear 16.

Skull: greatest length 25·5; basilar length 19·6; inter-orbital breadth 3·8; palate length 11; palatal foramina 4·8; length of upper molar series 3·2.

*Hab.* Near Sheoul, Fars, Persia. Altitude 5200 feet.

*Type.* Male, young adult. B.M. no. 2. 10. 1. 14. Collected 15th May, 1902, and presented by Harry F. Witherby, Esq.

This is evidently a desert form of the *Mus sylvaticus* group, its snowy-white belly distinguishing it from every described race. Its nearest geographical ally, *M. s. arianus*, Blanf., from Kohrud, N. of Isfahan, has also markedly larger teeth.

I have named this pretty mouse in honour of Mr. Witherby, to whom the National Museum owes examples of several interesting Persian mammals.

## LXVI.—Two new Australian Small Mammals.

By OLDFIELD THOMAS.

### *Mus ferculinus*, sp. n.

An insular form of the West-Australian *M. nanus*, Gould.

Size about as in *M. nanus*. General colour pale greyish brown, paler than in *M. nanus*; head darker brown than the back. Ears rather short, laid forward in a spirit-specimen they only just reach to the posterior canthus of the eye. Upper surface of hands and feet dull greyish white; fifth hind toe short, reaching without claw barely to the base of the fourth; external metatarsal pad of soles almost or quite obsolete; internal metatarsal oval. Tail rather shorter than the head and body, very finely scaled (11–15 rings to the centimetre), finely haired, brown above, dull white below.

Skull about as in *M. nanus*.